GÉANT Data Protection Code of Conduct

(GDPR Version)

Draft of version 7.0 (2 October 2018)

The work leading to this Code of Conduct has received funding from the European Union's Horizon2020 programme under Grant Agreement No. 731122 (GN4-2).

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DISCLAIMER

The principles laid down in this Code of conduct shall be considered as legally binding provided that this Code of Conduct is approved by competent supervisory authority in accordance with the procedure described in Article 40 of General Data Protection Regulation.

Before being approved, this Code of Conduct shall be interpreted as non-legally binding guidance and shall not be considered as providing appropriate safeguards within the meaning of the General Data Protection Regulation.

PURPOSE OF THIS CODE OF CONDUCT

This Code of Conduct relates to the processing of personal data for online access management purposes in the research and education sector and is ruled by the General Data Protection Regulation[1]. [2]

This Code takes into account the specific characteristics of the processing carried out in the research and education sector and describes the obligations of controllers and processors, taking into account the risk likely to result from the processing for the rights and freedoms of natural persons. When drafting the Code, relevant stakeholders, including data subjects, were consulted. The text of the Code takes into account the valuable submissions received and views expressed in response to the consultations.

Notwithstanding the provisions as set forth in an agreement between the **Home Organisation** and the **Service Provider Organisation**, which in all cases takes precedence, this Code of Conduct sets the rules that Service Provider Organisations can commit to when they want to receive End Users' Attributes from **Home Organisations** or their Agent for enabling the End Users to access their Services. Home Organisations will feel more comfortable to release affiliated End Users' Attributes to the Service Provider Organisation if they can see that the Service Provider Organisation has taken measures to properly protect the Attributes.

This Code of Conduct observes the data protection principles stemming from the General Data Protection Regulation (GDPR), and respecting the national provisions adopted by Member States.

This Code of Conduct constitutes a binding community code for the Service Provider Organisations that have committed to it.

This Code includes three appendices, detailing best practices on how to adhere to the rules of the Code.

These appendices relate to:

(1) information duties towards **End Users**,

(2) information security guidelines for **Service Provider Organisations** and,

(3) enforcement procedures for **non-compliance** with the Code of Conduct.

WHO CAN ADHERE THIS CODE OF CONDUCT?

TERRITORIAL SCOPE

This Code of Conduct is addressed to any **Service Provider Organisation** established in any of the Member States of the European Union and in any other countries belonging to the European Economic Area (Iceland, Liechtenstein and Norway).

[1] Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation)

[2] For further information regarding the purposes of this Code of Conduct, see the Explanatory Memorandum GEANT Code of Conduct.

Furthermore, **Service Provider Organisations** established in any third country offering an adequate level of data protection in the terms of Article 45 of the GDPR and International Organisations can also subscribe to this Code of Conduct.

In addition to this, Article 40.3 of the GDPR gives the opportunity to **Service Provider Organisations** that do not fall under the territorial scope of the Regulation (Article 3, territorial scope) and that are established outside of the EEA to join this Code of Conduct in order to provide appropriate safeguards within the framework of transfers of personal data to third countries or international organisations under the terms referred to in point (e) of Article 46(2).

FUNCTIONAL SCOPE

This Code of Conduct is limited to the processing of **Attributes which are released for enabling the End User to access the Service** as described in clause b. Purpose limitation.

In case the Service Provider Organisation uses the Attributes for purposes other than enabling the End User to access the Service, these activities fall out of the scope of this Code of Conduct.

The Service Provider Organisations and the communities representing the Service Provider Organisations can agree to apply the Code of Conduct also to other Attributes, such as those the Service Provider Organisations manage and share themselves, as further described in the Attribute Providers section.

ROLES OF THE PARTIES INVOLVED

This Code of Conduct is addressed to Service Provider Organisations acting as data controllers notwithstanding potential processing agreement between the Service Provider Organisation and the Home Organisation as described in clause r. Precedence.

In the context of this Code of Conduct:

1. A **Home Organisation** acts as a data controller as to the wider relationship with the **End User**, for example operating the Identity Provider (IdP) server in respect of the Attributes. An Agent who operates the IdP server on behalf of the **Home Organisation** acts as a data processor. This includes also the Federation Operators who operate a (potentially centralised) IdP server on behalf of the **Home Organisation**.

2. A **Service Provider Organisation** acts as a data controller in respect of the **Attributes**, processing them for the purposes as described in the clause b. Purpose limitation. In certain circumstances a **Service Provider Organisation** may be acting as a data processor, acting on behalf and as instructed by the **Home Organisation**. A **Service Provider Organisation** can also manage (and be a Data Controller for) extra attributes of an End User and further become an Attribute Provider, as described in the Attribute Providers section. A **Service Provider Organisation** may manage several independent Services and commits to the Code of Conduct for each of them separately.

3. An **End User** acts as a data subject whose personal data are being processed for the purposes as described in clause b. Purpose limitation.

The processing of the **Attributes** by the **Service Provider Organisation** for enabling the End User to access the Service is further explained in the Service-related Privacy Notice. As explained in Appendix 1, the Service-related Privacy Notice describes the reason for the processing, the way the data is collected, handled and the protection provided. It further explains how the data is used and the rights of the End User in relation to his personal data.

In the case that a Federation and a Federation Operator do not process the **Attributes** of the **End User**, no specific privacy notice needs to be put in place between the End User and the Federation Operator.

PRINCIPLES OF THE PROCESSING OF ATTRIBUTES

To the extent the **Service Provider Organisation** acts as a data controller, it agrees and warrants:

A. LEGAL COMPLIANCE

The Service Provider Organisation warrants to only process the Attributes in accordance with: the contractual arrangements with the Home Organisation, this Code of Conduct, or the relevant provisions of the GDPR.

Where the Service Provider Organisation processes the Attributes, the Service Provider Organisation shall comply with:

1. the agreement between the Home Organisation and the Service Provider Organisation;
2. if not applicable, the provisions of this Code of Conduct;
3. if not applicable, the relevant provisions of the GDPR.

In particular, the Service Provider Organisation shall ensure that all personal data processing activities carried out in this context comply with the GDPR.

The **Service Provider Organisation** based in the EEA territory commits to process the End User's **Attributes** in accordance with the applicable European data protection legislation. In principle, a Service Provider Organisation established in the EEA territory, subject to the European Data Protection legislation, shall not find itself in a situation where their national data protection laws would contradict this Code of Conduct.

Service Provider Organisations established outside the EEA territory but in a country offering an adequate data protection pursuant to Article 45 of the GDPR, should assess the compliance of this Code of Conduct with the laws of its jurisdiction. If observance of any provision of the Code of Conduct would place the Service Provider Organisation in breach of such laws, the national law of its jurisdiction shall prevail over such provision of the Code of Conduct, and compliance with national law to this extent will not be deemed to create any non-compliance by the Service Provider Organisation with this Code of Conduct.

The **Service Provider Organisation** based outside the EEA and countries offering adequate data protection commits to process the End User's Attributes in accordance with the GDPR, this Code of Conduct and any other contractual or other arrangements, such as the use of EU model clauses. Such Service Provider Organisations shall make binding and enforceable commitments to apply the appropriate safeguards, including as regards data subjects' rights[3], in addition to committing to abide by this Code of Conduct.

Service Provider Organisations may be subject to internal regulations and policies of Intergovernmental Organisations.

Regarding the applicable law, see clause n. Governing law and jurisdiction.

In the event of conflict between the provisions of this Code of Conduct and the provisions of a contractual arrangement with the Home Organisation, see clause r. Precedence.

B. PURPOSE LIMITATION

The **Service Provider Organisation** warrants that it will process Attributes of the **End User** only for the purposes of enabling access to the Service.

The Attributes shall not be further processed in a manner which is not compatible with the initial purposes (Article 5.b of the GDPR).

The Service Provider Organisation must ensure that Attributes are used only for enabling the End User to access the Service. As far as the use of Attributes for deviating purposes is concerned, see clause c. Deviating purposes.

In practice, enabling access to the Service covers:

- **Authorisation:** managing **End User's** access rights to Services provided by the **Service Provider Organisation** based on the **Attributes**. Examples of such **Attributes** are those describing the End User's **Home Organisation** and organisation unit, their role and position in the **Home Organisation** (whether they are university members, students, administrative staff, etc.) and, for instance, the courses they are taking or teaching. The provenance of those **Attributes** is important for information security purposes; therefore, authorisation cannot be based on an Attribute that an End User has self-asserted.

- **Identification: End Users** need to have a personal account to be able to access their own files, datasets, pages, documents, postings, settings, etc. The origin of an **Attribute** used for identification is important; to avoid an identity theft, an End User cannot self-assert their own identifier. Instead, the Identity Provider authenticates them and the Home Organisation (or

[3] In the event where a EU End User would lodge a complaint against a Service Provider Organisation based outside the EU (i.e. in the US), the competent European Data Protection Authority would be able to investigate on the alleged violation of data protection.

Attribute Provider) provides the **Service Provider Organisation** with an **Attribute** that contains their authenticated identifier.

- **Transferring real-world trust** to the online world: if the **Service Provider Organisation** supports a user community that exists also in the real world, **Attributes** can be used to transfer that community to the online world. For instance, if the members of the user community know each other by name in the real world, it is important that their names (or other identifiers) are displayed also in any discussion or collaboration forum offered by the **Service Provider Organisation**. The source of those **Attributes** is important; to avoid identity theft, the **Service Provider Organisation** must retrieve users' names from trustworthy sources and not rely on self-assertions.

- **Researcher unambiguity:** ensuring that a researcher's scientific contribution is associated properly to them and not to a wrong person (with potentially the same name or initials). In the research sector, publishing scientific results is part of researchers' academic career and the researchers expect to receive the merit for their scientific contribution. There are global researcher identification systems (such as ORCID and ISNI) which assign identifiers for researchers to help scientific **Service Provider Organisation**s to properly distinguish between researchers, even if they change their names or organisation they are affiliated with.

- **Accounting and billing:** personal data can be processed for accounting (for instance, that the consumption of resources does not exceed the resource quota) and billing purposes. In the research and education sector, the bill is not always paid by the End User but by their Home Organisation, project, grant or funding agency.

- **Information Security:** personal data can be processed to ensure the integrity, confidentiality and availability of the Service (e.g.: incident forensic and response).

- **Other functionalities** offered by the **Service Provider Organisation** for enabling the End User to access the Service: using **Attributes** of End Users for the purposes of other functionalities offered by the Service Provider Organisation. It is common that services on the Internet send e-mail or other notifications to their users regarding their services. Examples of scenarios where processing End User's email address or other contact detail falls within the scope of enabling access to the Service include for instance:

    - the End User's application to access the resources has been approved by the resource owner;
    - the End User's permission to use a resource is expiring or they are running out of the resource allocation quota;
    - someone has commented on the End User's blog posting or edited their wiki page.

See also the next clause on deviating purposes.

C. DEVIATING PURPOSES

The Service Provider Organisation commits not to process the Attributes for purposes other than enabling the End User to access the Service, unless the End User has given prior consent to the Service Provider Organisation.

If the Service Provider Organisation wants to use the Attributes for purposes other than "enabling the End User to access the Service" (see b. Purpose limitation), it can only do so if the End User gives their consent to the Service Provider Organisation. See also clause l. End User's consent for the requirements on consent.

Examples of deviating purposes[4] are: sending the End User commercial or unsolicited messages, including End User's e-mail address to a newsletter offering new services, selling the Attributes to third parties, transferring information to third parties such as the search history, profiling activities etc.

D. DATA MINIMISATION

The Service Provider Organisation commits to minimise the Attributes requested to those that are adequate, relevant and not excessive for enabling access to the Service and, where a number of Attributes could be used to provide access to the Service, to use the least intrusive Attributes possible.

The following list presents examples of Attributes that are **adequate**, **relevant** and **not excessive** for enabling the End User to access the Service. The Attribute names refer to the schema (e.g. eduPerson, Schac) and protocol (SAML2) definitions currently used widely in the GÉANT community:

- an Attribute (such as, eduPerson(Scoped)Affiliation, eduPersonEntitlement or schacHomeOrganisation) indicating that the End User is authorised to use the Service:
    - a trusted value provided by the IdP is needed instead of a value self-asserted by the End User.
- an Attribute (such as, SAML2 PairwiseID or PersistentID) uniquely identifying the End User required, for instance, to store the End User's Service profile:
    - a trusted value provided by the IdP is needed. To avoid an identity theft, an End User cannot self-assert their own identifier.

[4] Consult the Article 29 Working Party's Opinion 03/2013 on purpose limitation. This document can guide the Service Provider to ascertain whether the purpose for the processing of the personal data is compatible or not.

- if there are several alternative unique identifiers available for the Service, the least intrusive must be used:
    - a pseudonymous bilateral identifier (such as, SAML2 PairwiseID or PersistentID) is preferred;
    - if enabling access to the Service requires matching the same End User's accounts between two Service Provider Organisations, a Service Provider Organisation can request a more intrusive identifier (such as SAML2 Subject ID, eduPersonPrincipalName or eduPersonUniqueID), whose value for a given user is shared by several Service Provider Organisations;
    - if there is a legitimate reason for an End User (such as a researcher) to keep their identity and profile in the Service Provider Organisation even when the organisation they are affiliated with changes, a permanent identifier (such as, ORCID identifier) can be used.
- a name Attribute (such as commonName or DisplayName Attribute) is necessary for a wiki or other collaboration platform, if the End Users know each other in real life and need to be able to transfer their existing real-world trust to an online environment.
    - if knowing the contributor's name is important for the collaboration, the name can be requested;
    - otherwise, the name cannot be requested. Instead, the Service may indicate the user as "unknown" or use a pseudonym the user has selected or the system has assigned to him/her.
- e-mail address or other contact details, if it is necessary to contact the **End User** for the proper functioning of the Services offered by the **Service Provider Organisation**.

In the context of this Code of Conduct, under no circumstances is a **Service Provider Organisation** is authorised to request End User's Attribute revealing racial or ethnic origin, political opinions, religious or philosophical beliefs, trade-union membership, genetic data, biometric data for the purposes of uniquely identifying a natural person or data concerning health or sex life or sexual orientation.

E. INFORMATION DUTY TOWARDS END USER

The **Service Provider Organisation** shall provide the **End User** with a Privacy Notice before they initiate the federated login for the first time.

This Privacy Notice must be concise, transparent, intelligible and provided in an easily accessible form.

The Privacy Notice shall contain at least the following information:

- the name, address and jurisdiction of the **Service Provider Organisation**; where

applicable;

- the contact details of the data protection officer, where applicable;
- the purpose or purposes of the processing of the **Attributes**;
- a description of the **Attributes** being processed as well as the legal basis for the processing;
- the third party recipients or categories of third party recipient to whom the Attributes might be disclosed, and proposed transfers of **Attributes** to countries outside of the European Economic Area;
- the existence of the rights to access, rectify and delete the **Attributes** held about the **End User**;
- the retention period of the **Attributes**;
- a reference to this Code of Conduct;
- the right to lodge a complaint with a supervisory authority.

The Privacy Notice can be, for instance, linked to the front page of the Service. It is important that the **End User** can review the policy before they log in for the first time. The Privacy Notice shall use clear and plain language.

The Privacy Notice is Service specific and not the same for different Services of a Service Provider Organisation.

The **Service Provider Organisation** needs to describe in its Privacy Notice how End Users can exercise their right to access, request correction and request deletion of their personal data.

The **Service Provider Organisation** may include additional information, but must include as a minimum the information described above. The additional information could for example refer to the additional data processing activities of the **Service Provider Organisation**. Additional processing activities must comply with the provisions of clause c. Deviating purposes and be included in the Privacy Notice.

The **Service Provider Organisation**s are advised to make use of the Privacy Notice template that belongs to the supporting material of the Code of Conduct in Appendix 1: Information duty towards End Users.

F. INFORMATION DUTY TOWARDS HOME ORGANISATION

The **Service Provider Organisation** commits to provide to the **Home Organisation** or its Agent at least the following information:

a) a machine-readable link to the Privacy Notice;
b) indication of commitment to this Code of Conduct;
c) any relevant updates or changes in the local data protection legislation that may affect this

Code of Conduct.

GÉANT has put in place a scalable technical solution allowing **Service Provider Organisations** to publicly announce their adherence to this Code of Conduct and to communicate its Service Privacy Notice's URL. When a Service Provider Organisation has several Service Privacy Notice, the URL of each Service Privacy Notice will be provided to the Home Organisation. This information is shared with the Home Organisation's Identity Provider before it releases the End User's Attributes to the **Service Provider Organisation**, enabling the Home Organisation to present it to the End User.

The current technical infrastructure is based on the standard SAML 2.0 metadata management and distribution system operated by Federation Operators. However this Code of Conduct will apply despite the future changes in the technical infrastructure.

G. DATA RETENTION

The **Service Provider Organisation** shall delete or anonymize all **Attributes** without undue delay as soon as they are no longer necessary for the purposes of providing the Service.

Under the GDPR, anonymized data does not constitute personal data; therefore, anonymized data can be kept indefinitely.

The retention period of the **Attributes** depends on the particularities of the Service and it needs to be decided by the **Organisation**. However, a **Service Provider Organisation** shall not store the **Attributes** for an unlimited or indefinite period of time.

The **Service Provider Organisation** has to implement an adequate data retention policy compliant with the GDPR and other applicable data protection legislation. The existence of this policy must be communicated in the Service's Privacy Notice (see clause e. Information duty towards End User).

In principle the personal data must be deleted or anonymised if the **End User** (or their **Home Organisation**) no longer wishes to use the Service.

However, in many cases, the **End User** does not explicitly inform the **Service Provider Organisation** that they no longer wish to use the Service, they just do not log in to the Service anymore. In this case it is considered as a good practice to delete or anonymise the **End User's** personal data if they have not logged in for 18 months.

On the other hand, there are also circumstances where an **End User** not signing in does not necessarily mean that they no longer wish to use the Service. The **Service Provider Organisation** shall implement appropriate processes to manage this type of situation. For instance:

- if the Service is an archive for scientific data, the researchers who deposit their datasets to the archive may still remain the owners or custodians of the dataset although they do not log in for a while;

- if the Service is a source code control system (for example, git), an **End User** uses to publish their computer program code, the **End User** may still want to be able to log in and maintain their code, although they have not logged in for a while;

- if the Service is a repository where researchers publish their scientific findings and contribution, the researchers still want to have their name and other **Attributes** attached to the finding, although they do not regularly log in;

- if the Service is a collaborative application (such as, a wiki or a discussion board) where the **End User** has their name or other **Attribute** attached to their contribution to let the other users learn and assess the provenance of the contribution and Attribute it to a specific person.

The Personal Data, including log files, do not need to be removed or anonymised as long as they are needed:

- for archiving purposes in the public interest, scientific or historical research purposes or statistical purposes;

- for compliance with a legal obligation which requires processing by International, European or Member State law to which the **Service Provider Organisation** is subject;

- for the performance of a task carried out in the public interest;

- for the establishment, exercise or defence of legal claims, such as resource allocation or invoices;

- for exercising the right of freedom of expression and information.

H. SECURITY MEASURES

The **Service Provider Organisation** warrants taking appropriate technical and organisational measures to safeguard Attributes against accidental or unlawful destruction or accidental loss, alteration, unauthorised disclosure or access. These measures shall ensure a level of security appropriate to the risks represented by the processing and the nature of the data to be protected, having regard to the state of the art and the cost of their implementation.

The **Service Provider Organisation** shall implement the security measures described in Appendix 2: Information Security, technical and organisational guidelines for Service Provider Organisations.

I. SECURITY BREACHES

The **Service Provider Organisation** commits to, without undue delay, report all suspected privacy or security breaches, meaning any breach of security leading to the accidental or unlawful destruction, loss, alteration, unauthorised disclosure of, or access to, personal data transmitted, stored or otherwise

processed concerning the **Attributes** to the **Home Organisation** or its Agent and, where this is legally required, to the competent data protection authority and/or to the **End Users** whose data are concerned by the security or privacy breach.

Article 33 of the GDPR describes the conditions when a personal data breach must be notified to the supervisory authority. This clause imposes an obligation to notify also the Home Organisation, to allow them to take the necessary technical and organisational measures for mitigating any risk the **Home Organisation** may be exposed to.

For example, if the **Service Provider Organisation** suspects that one or more user accounts in the **Home Organisation** has been compromised, the **Service Provider Organisation** contacting the **Home Organisation** enables the **Home Organisation** to take measures to limit any further damage (such as, suspend the compromised accounts) and to start the necessary actions to recover from the breach, if any.

The **Service Provider Organisation** shall use the security contact point of the Home Organisation or its Agent as provided in the technical infrastructure (currently, SAML 2.0 metadata), or an appropriate alternative, for the reporting.

J. TRANSFER OF PERSONAL DATA TO THIRD PARTIES

The **Service Provider Organisation** shall not transfer Attributes to any third party (such as a collaboration partner) except:

a) if mandated by the **Service Provider Organisation** for enabling the End User to access its Service on its behalf, or;

b) if the third party is committed to the Code of Conduct or has undertaken similar duties considered sufficient under the data protection law applicable to the **Service Provider Organisation** or;

c) if prior consent has been given by the End User.

The **Service Provider Organisation** shall not transfer Attributes to any third party (third party means a data controller other than the Home organisation or the Service Provider Organisation such as a collaboration partner) except:

a) if the third party is a data processor for the **Service Provider Organisation** in which case an ordinary controller-processor relationship applies between the **Service Provider Organisation** and the third party working on behalf of the **Service Provider Organisation**. The **Service Provider Organisation** must conclude a written agreement with such data processor in accordance with applicable laws.

b) if the third party is committed to the Code of Conduct. This is expected to be the case for various collaborative research scenarios, where the Service is provided to the **End User** by several data controllers working in collaboration.

A typical scenario is where a research collaboration has a **Service Provider Organisation** that receives **Attributes** from **Home Organisations** and passes on (parts of) those **Attributes** to third parties providing the actual Services. In this case, where the **Service Provider Organisation** acts as a proxy for the third parties, the **Service Provider Organisation** must ensure that all third parties receiving Attributes are committed to the Code of Conduct or similar (such as a Data Processing Agreement or a Data Transfer Agreement).

In contrast, if none of the **Attributes** received from the **Home Organisation** are being passed on, e.g. when only an internal identifier assigned by the proxy is sent to the third parties, the proxy does not need to make sure those third parties are committed to the Code of Conduct.

The organisation operating a proxy service, as described above, must act as intermediary between the **Home Organisation** and the third party. For instance, the proxy needs to relay the suspected privacy or security breaches to the **Home Organisation** or its Agent, as described in clause h. Security measures.

c) if prior consent has been given by the **End User.** For the requirements of such consent, see clause l. End User's consent.

If transfer to a third party includes also a transfer to a third country, the next clause imposes further requirements.

K. TRANSFER OF PERSONAL DATA TO THIRD COUNTRIES

1. Transfers among **Service Provider Organisations** that have adhered to the Code of Conduct.

This Code of Conduct constitutes an adequate legal basis for cross-border transfers of Attributes among the **Service Provider Organisations** that have adhered to it, whether the **Service Provider Organisation** receiving the Attributes is established in the European Economic Area or not. In other terms, the Code of Conduct legitimates cross-border transfers among the parties that have committed to the Code of Conduct.

2. Transfers to parties that have **not** adhered to this Code of Conduct established outside the EEA

The **Service Provider Organisation** guarantees that, when transferring **Attributes** to a party that has not adhered to this Code of Conduct and that is based outside the European Economic Area or in a country without an adequate level of data protection pursuant to Article 45.1 of the GDPR or the recipient is an International Organisation, to take appropriate safeguards.

Under European data protection legislation, transfers of personal data from the European Economic Area to third countries that do not offer an adequate level of data protection are restricted, unless the recipient territory ensures so-called *"appropriate safeguards"*. However, Article 49 of the GDPR provides with an exhaustive list of derogations to this general prohibition. The following derogations are relevant for this context:

- **Consent of the End User**: The unambiguous consent of the data subject legitimates data transfers to third countries, even if the recipient does not offer an adequate level of protection. The **Service Provider Organisation** may rely on the End User's freely given informed revocable consent as described in clause l. End User's consent.

- **Contractual guarantees**: The existence of an appropriate contractual framework, supported by Standard contract clauses, either adopted by the European Commission or by a supervisory authority, the use of appropriate safeguards such as Binding Corporate Rules or other legally binding and enforceable instruments are recognised methods of transferring personal data. The use of Standard contract clauses does not exclude the possibility for the contracting parties to include them in a wider contract nor to add other clauses as long as they do not enter in contradiction. When using EU model clauses, the **Service Provider Organisation** needs to verify and ascertain that the other party is able to comply with all contractual obligations set out in the model clauses, especially taking into account local law applicable to such party.

- **Approved code of conduct:** an approved code of conduct pursuant to Article 40 of the GDPR together with binding and enforceable commitments of the controller or processor in the third country to apply the appropriate safeguards, including as regards data subjects' rights.

If transferring Attributes to a third country involves also a transferring them to a third party, also clause j. Transfer of personal data to third parties needs to be satisfied.

L. END USER'S CONSENT

Consent must be freely given, specific, informed and must unambiguously indicate the **End User's** wishes by which they, by a statement or by a clear affirmative action, signify agreement to the processing of their personal data.

When a **Service Provider Organisation** relies on End User's consent (e.g. c. Deviating purposes, j. Transfer of personal data to third parties, k. Transfer of personal data to third countries), it can be provided by a written statement, including by electronic means. This could include ticking a box when visiting an internet website, choosing privacy settings options of a software or another statement or conduct (i.e. a clear affirmative action) which clearly indicates the data subject's acceptance of the proposed processing of their personal data. Consent shall always be documented. Furthermore, the **End Users** shall be able to withdraw their consent .

Following Recital 43 of the GDPR, the Service Provider Organisation shall not rely on consent when there is a clear imbalance between the End User and the Service Provider Organisation.

Notice that this Code of Conduct for Service Provider Organisations does not make normative requirements on the Home Organisation's legal grounds to release Attributes to the Service Provider Organisation. However, the user interaction assumes the Attribute release is not based on the End User's consent.

M. LIABILITY

The Service Provider Organisation agrees to hold harmless the **End User and** the **Home Organisation** (as well as the Agent) who has suffered damage as a result solely of any violation of this Code of Conduct by the **Service Provider Organisation** as determined in a binding and enforceable judicial ruling.

In the event of damages related to the breach of this Code of Conduct (i.e.: using the **Attributes** for other purposes, sharing the **Attributes** with third parties etc.), the **Service Provider Organisation** will hold the other parties harmless following a binding and enforceable judicial ruling.

For example, in case an **End User** files a complaint against their **Home Organisation** for unlawful release of **Attributes** after a **Service Provider Organisation** has released the **Attributes** to a third party, the **Service Provider Organisation** agrees to assume the liabilities of the **Home Organisation** towards the **End User** in respect of a breach of this Code of Conduct by the Service Provider Organisation. .

A Service Provider Organisation shall be exempt from liability if it proves that it is not in any way responsible for the event giving rise to the damage

N. GOVERNING LAW AND JURISDICTION

This Code of Conduct shall be interpreted in the light of the GDPR and of the guidance issued by the European Data Protection Board or its predecessor[5], always notwithstanding any privileges and immunities of Service Provider Organisations being International Organisations, as these are awarded by their constituent and/or statutory documents and international law.

If there are any disputes regarding the validity, interpretation or implementation of this Code of Conduct, the parties shall agree on how and where to settle them.

This Code of Conduct shall be interpreted in the light of the GDPR and of guidance issued by the regulatory authorities such as the European Data Protection Board

If there are disputes regarding the validity, interpretation or implementation of this Code of Conduct, the parties shall agree on how and where to settle them. For instance, if there is a dispute between a Home Organisation and Service Provider Organisation who are established in the same EU Member State, the parties can agree on using the local law and court. If the parties are both International Organisations, the parties can agree on an arbitration court. If only one of the parties is an International Organisation, the parties shall bring their dispute before the arbitration court of the Service Provider's jurisdiction. If the parties cannot come to an agreement, the Dutch laws and courts are assumed.

[5] The Opinion 8/2010 on applicable law of the Article 29 Working Party, as updated in 2015, provides useful guidance on how to determine the applicable law in cross-national collaborations.

O. ELIGIBILITY

The Code of Conduct must be implemented and executed by a duly authorised representative of the **Service Provider Organisation**.

Each **Service Provider Organisation** must make sure that the commitment to this Code of Conduct is done by a person or by several persons (sometimes called a "signature authority") who has or have the right to commit the **Service Provider Organisation** to this Code of Conduct.

The person administering the Service that receives **Attributes** must identify the person or body in their organisation that can decide if the **Service Provider Organisation** commits to this Code of Conduct, as the Service administrator cannot necessarily take this decision on their own.

P. TERMINATION OF THE CODE OF CONDUCT

The **Service Provider Organisation** can only terminate adherence to this Code of Conduct in case of:

- this Code of Conduct being replaced by a similar arrangement, or;
- the termination of the Service provisioning to the Home Organisation or;
- the effective notification provided by the authorised representative of the Service Provider Organisation to terminate its adherence to this Code of Conduct.

Even after the **Service Provider Organisation** has terminated its adherence to the Code of Conduct, the Attributes received continue to be protected by the GDPR (see q. Survival of the Code of Conduct).

Q. SURVIVAL OF THE CODE OF CONDUCT

The **Service Provider Organisation** agrees to be bound by the provisions of this Code of Conduct that are intended to survive due to their sense and scope after the end, lapse or nullity of this Code of Conduct until the processing terminates.

R. PRECEDENCE

The Service Provider Organisation warrants to comply with the stipulation that, in the event of conflict between a provision contained in this Code of Conduct and a provision of the agreement concluded between the **Service Provider Organisation** and the **Home Organisation**, the provision of the agreement concluded between **Service Provider Organisation** and **Home Organisation** takes precedence over the provision of this Code of Conduct.

In case of conflict between the provisions of the agreement between the Service Provider Organisation and the Home Organisation, this Code of Conduct and/or the data protection legislation, the following order shall prevail:

1. the agreement between the Home Organisation and the Service Provider Organisation;
2. the provisions of this Code of Conduct and;
3. Applicable Data Protection Laws (such as other country specific law on Data protection or Privacy).

If a **Service Provider Organisation** has an agreement (possibly a data processing agreement) with (some of) the **Home Organisation**(s) and the agreement is in conflict with this Code of Conduct, that agreement has precedence.

This section allows the **Service Provider Organisation** to have a bilateral agreement overriding the Code of Conduct with some **Home Organisations**, meanwhile, this Code of Conduct will still apply to the other **Home Organisations** that have not entered into a bilateral agreement.

ATTRIBUTE PROVIDERS

An Attribute Provider is an organisation other than the Home Organisation that manages extra Attributes for End Users of a Home Organisation and releases them to the Service Provider Organisation.

According to Section Functional Scope, the Service Provider Organisation and the communities representing the Service Provider Organisation can agree to apply the Code of Conduct also to other Attributes, such as those the Service Provider Organisation manage and share themselves. The organisation managing the extra Attributes becomes an Attribute Provider.

When the Code of Conduct is applied to Attributes managed by Attribute Providers, the Service Provider Organisation further agrees and warrants the following:

- (see clause i. Security Breaches) the Service Provider Organisation commits to report all suspected privacy or security breaches also to the Attribute Provider;
- (see clause m. Liability) the Service Provider Organisation agrees to hold harmless also the Attribute Provider who has suffered damage as a result solely of any violation of this Code of Conduct by the Service Provider Organisation as determined in a binding and enforceable judicial ruling;
- (see clause r. Precedence) the Service Provider Organisation warrants to comply also with the stipulation that, in the event of conflict between a provision contained in this Code of Conduct and a provision of the agreement concluded between the Service Provider Organisation and the

Attribute Provider, the provision of the agreement concluded between Service Provider Organisation and Attribute Provider takes precedence over the provision of this Code of Conduct.

APPENDIX 1: INFORMATION DUTY TOWARDS END USERS

This appendix consists of two parts:

I. How a Service Provider Organisation can develop a Privacy Notice.

   Although this is a mandatory obligation, practice has shown that it is a challenge for many **Service Provider Organisations** to develop an appropriate Privacy Notice for the Services they provide. A practical template is provided to assist the **Service Provider Organisations**.

II. How the **Home Organisation** should inform the **End User** about the **Attribute release**.

   This guideline is primarily for software developers who develop an **End User** interface for the **Attribute** release on an **Identity Provider** server.

PRIVACY NOTICE TEMPLATE

This template intends to assist **Service Provider Organisations** in developing a Privacy Notice document that fulfils the requirements of the GDPR and the Code of Conduct. The template presents some examples (in italics) and proposes some issues that should be to taken into account.

The Privacy Notice must be provided at least in English. You can add another column to the template for a local translation of the text. Alternatively, the local translation can be a parallel page, and you can use the xml:lang element to introduce parallel language versions of the Privacy Notice page as described in SAML2 Profile for the Code of Conduct.

Name of the Service	SHOULD be the same as mdui:DisplayName *WebLicht*
Description of the Service	SHOULD be the same as mdui:Description *WebLicht is a service for language research. It provides an execution environment for automatic annotation of text corpora.*
Data controller and a contact person	*Tübingen university, Institute for language research* *Laboratory manager Bob Smith, bob.smith@example.org*

Personal data processed and the legal basis for processing	*A. Personal data retrieved from your Home Organisation:* *- your unique user identifier (SAML persistent identifier) ** *- your role in your Home Organisation (eduPersonAffiliation Attribute) ** *- your name ** *B. Personal data you have provided or may be generated as a result of your use of our service:* *- logfiles on the service activity ** *- your profile* *...* *** = the personal data is necessary for providing the Service that the End User has requested. Other personal data is processed because you have consented to it.* Please make sure the list A. matches the list of requested Attributes in the Service Provider Organisation's SAML 2.0 metadata.
Purpose of the processing of personal data	Don't forget to describe also the purpose of the log files, if they contain personal data (usually they do). *Your personal data is used* - *to authorise your access to and use of the compute resources we provide* - *to properly account your use to relevant infrastructure funding bodies* - *to ensure the integrity and availability of our service*
Third parties to whom personal data is disclosed	Notice clause j of the Code of Conduct for Service Provider Organisations. *We may share your personal data with third parties (or otherwise allow them access to it) in the following cases:* *(a) to satisfy any applicable law, regulation, legal process, subpoena or governmental request;*

	(b) to enforce this Privacy Policy, including investigation of potential violations thereof; Inform the user that his/her personal data may be displayed to other users of the service or to the public. *Your personal data may be accessible by others users and by the public (e.g. for a wiki, a text in the bottom of the page may state "This page was last edited by [first name] [last name] ...".)* Are the 3rd parties outside EU/EEA or the countries or international organisations whose data protection EC has decided to be adequate? If yes, add references to the appropriate or suitable safeguards. *In the case where a third party is located in a country whose data protection laws are not as comprehensive as those of the countries within the European Union we will take appropriate steps to ensure that transfers of your personal data are still protected in line with European standards.* *You have a right to contact us for more information about the safeguards we have put in place to ensure the adequate protection of your personal data when this is transferred as mentioned above.*
How to access, rectify and delete the personal data and object its processing.	*Contact the contact person above.* *To rectify the data released by your Home Organisation, contact your Home Organisation's IT helpdesk.*
Withdrawal of consent	If personal data is processed based on user consent, how they can withdraw it?
Data portability	Can the user request their data be ported to another Service? How?
Data retention	When the user record is going to be deleted or anonymised? Remember, you cannot store user records infinitely. It is not sufficient that you promise to delete user records on request. Instead, consider defining an explicit period. *Personal data is deleted on request of the user or if the user hasn't used*

	the Service for 18 months.
Data Protection Code of Conduct	*Your personal data will be protected according to the Code of Conduct for Service Provider Organisations, a common standard for the research and higher education sector to protect your privac*y.

APPENDIX 2: INFORMATION SECURITY, TECHNICAL AND ORGANISATIONAL GUIDELINES FOR SERVICE PROVIDER ORGANISATIONS

This annex describes the technical and organizational security measures for protecting the **Attributes** as well as the information systems of the Service Provider Organization where they are processed (such as a SAML SP software, the infrastructures on which the software is deployed and the application(s) it supplies with the Attributes). Note that the scope of this document is limited to what is required to protect the Attributes. The Service Provider Organization may need to define additional requirements for the protection of its assets.

To address the technical and organizational measures to protect the Attributes as well as the information systems of the Service Provider Organization where they are processed, it is recommended that the **Service Provider Organizations** adopt the security measures described in the Sirtfi trust framework (ver 1.0) [SIRTFI] which are copied below for convenience.

NORMATIVE ASSERTIONS

In this section a set of assertions are defined that each organization shall self-attest to so that they may participate in the Sirtfi trust framework. These are divided into four areas: operational security, incident response, traceability and participant responsibilities.

An attestation to the assertions in this document refers specifically and only to the statements in this section that are identified by labels within square brackets "[", "]".

How comprehensively or thoroughly each asserted capability should be implemented across an organization's information system assets is not specified. The investment in mitigating a risk should be commensurate with the degree of its potential impact and the likelihood of its occurrence, and this determination can only be made within each organization.

1 OPERATIONAL SECURITY [OS]

Managing access to information resources, maintaining their availability and integrity, and maintaining confidentiality of sensitive information is the goal of operational security.

- [OS1] Security patches in operating system and application software are applied in a timely manner.
- [OS2] A process is used to manage vulnerabilities in software operated by the organization.
- [OS3] Mechanisms are deployed to detect possible intrusions and protect information systems from significant and immediate threats
- [OS4] A user's access rights can be suspended, modified or terminated in a timely manner.
- [OS5] Users and Service Owners (as defined by ITIL [ITIL]) within the organization can be contacted.

- [OS6] A security incident response capability exists within the organization with sufficient authority to mitigate, contain the spread of, and remediate the effects of a security incident.

2 INCIDENT RESPONSE [IR]

Assertion [OS6] above posits that a security incident response capability exists within the organization. This section's assertions describe its interactions with other organizations participating in the Sirtfi trust framework.

- [IR1] Provide security incident response contact information as may be requested by an R&E federation to which your organization belongs.
- [IR2] Respond to requests for assistance with a security incident from other organizations participating in the Sirtfi trust framework in a timely manner.
- [IR3] Be able and willing to collaborate in the management of a security incident with affected organizations that participate in the Sirtfi trust framework.
- [IR4] Follow security incident response procedures established for the organization.
- [IR5] Respect user privacy as determined by the organizations policies or legal counsel.
- [IR6] Respect and use the Traffic Light Protocol [TLP] information disclosure policy.

3 TRACEABILITY [TR]

To be able to answer the basic questions "who, what, where, and when" concerning a security incident requires retaining relevant system generated information, including accurate timestamps and identifiers of system components and actors, for a period of time.

- [TR1] Relevant system generated information, including accurate timestamps and identifiers of system components and actors, are retained and available for use in security incident response procedures.
- [TR2] Information attested to in [TR1] is retained in conformance with the organization's security incident response policy or practices.

4 PARTICIPANT RESPONSIBILITIES [PR]

All participants (IdPs and SPs) in the federations need to rely on appropriate behavior.

- [PR1] The participant has an Acceptable Use Policy (AUP).
- [PR2] There is a process to ensure that all users are aware of and accept the requirement to abide by the AUP, for example during a registration or renewal process.

REFERENCES

[ITIL] Axelos ITIL Glossary of Terms, https://www.axelos.com/glossaries-of-terms

[SIRTFI] A Security Incident Response Trust Framework for Federated Identity, version 1.0: https://refeds.org/wp-content/uploads/2016/01/Sirtfi-1.0.pdf

[TLP] US Cert Traffic Light Protocol, https://www.us-cert.gov/tlp

APPENDIX 3: HANDLING NON-COMPLIANCE OF SERVICE PROVIDER

INTRODUCTION

This appendix describes examples of situations of non-compliance to the GÉANT Data Protection Code of Conduct. As a result, actions can be raised and monitoring bodies can intervene.

This Data protection Code of Conduct relies on the following principles:

- the **Home Federation** that has registered a **Service Provider Organisation** records a technical indication (currently, using a tag embedded in SAML 2.0 metadata) of the **Service Provider Organisation's** adherence to the Code of Conduct. The indication signals that the **Service Provider Organisation** believes that its Service is being operated in a manner that is consistent with the Code of Conduct.

- The technical infrastructure (currently, SAML 2.0 metadata exchange service) that the federation(s) provides delivers the indications from Service Provider Organisations to **Home Organisations'** Identity Provider servers.

- Notifying a **Service Provider Organisation** of a potential (suspected) non-compliance issue does not transfer responsibility from the the **Service Provider Organisation to the notifying party**.

EXAMPLES OF SP NON-COMPLIANCE

The **Service Provider Organisation** can violate the Code of Conduct in several ways, such as:

- requesting Attributes which are not relevant for the Service (c.f. clause b. Purpose limitation);
- processing the Attributes for an undefined period of time (c.f. clause g. Data retention);
- processing the Attributes for a deviating purpose or transferring them to a third party in a way that violates clause b. Purpose limitation and c. Deviating purposes of the Code of Conduct (for instance, transferring the **Attributes** to a company for commercial purposes without End User's consent);
- disclosing the **Attributes** (c.f. clause c. Deviating purposes);
- omitting to install security patches (c.f. clause h. Security measures and Appendix 2: Information Security, technical and organisational guidelines for Service Provider Organisations);
- omitting to publish a Privacy Notice or publish an insufficient Privacy Notice (c.f. clause Appendix 1: Information duty towards End Users).

If anyone (such as an End User, a **Home Organisation** or a Federation Operator) suspects that a **Service Provider Organisation** is not complying with the Code of Conduct to which it has committed, the following alternative, mutually non-exclusive, actions are suggested:

1. Contact the Service Provider Organisation directly (with a copy to the **Service Provider Organisation's** Home Federation), describing the suspected problem, and ask the **Service Provider Organisation** to check if it has a compliance problem and correct it;
2. Contact the Service's Home Federation, and request to contact the **Service Provider Organisation** and to check if there is a compliance problem and request to correct it. Depending on the Home Federation's policy, there may be also additional measures available for handling non-compliance;
3. Contact the Monitoring Body accredited to monitor compliance with the Code of Conduct, if applicable, as defined in Article 41 of the GDPR and below;
4. Determine the location of the legal entity operating the **Service Provider Organisation** (see clause e), and lodge a complaint with the competent Supervisory authority (as defined in Articles 57 and 58 of the GDPR).

MONITORING BODY OF THE CODE OF CONDUCT

Accredited in accordance with Article 41 of the GDPR, GÉANT Association is appointed Monitoring Body of the Code of Conduct. This section shall be interpreted in the light of the guidance to be issued by the regulatory authorities such as the European Data Protection Board.

The Monitoring Body is responsible for:

- monitoring the **Service Provider Organisations'** compliance with the Code of Conduct;
- issuing guidelines on the implementation of the Code of Conduct;
- providing guidance on the self-assessment procedure for Service Provider Organisations and issue checklist;
- establishing procedures and structures to handle complaints about infringements of the Code transparent and making its contact details available to the public;
- handling complaints received from End Users, Home Organisations, Federation Operators or other parties

Having received a complaint the Monitoring Body will:

I. ask the **Service Provider Organisation** to present its counterpart,
II. if the monitoring body finds the **Service Provider Organisation** to be non-compliant with the Code of Conduct, give the **Service Provider Organisation** at most four weeks' time to remediate the issue,
III. communicate the **Service Provider Organisation** the decision to remove the **Service Provider Organisation's** tag and allow the **Service Provider Organisation** to introduce an appeal within two weeks after the notification of the decision to the **Service Provider Organisation**,
IV. acknowledge receipt and consider the appeal submitted by the **Service Provider Organisation,**
V. mandate the Home Federation to remove the **Service Provider Organisation's** tag if the appeal has been dismissed and if the Service Provider Organisation has not fixed the non-compliance issue within the given timeframe.

The Service's Home Federation must be informed on steps I-IV and Service Provider Organisation on step V.

The **Service Provider Organisation** whose tag has been removed can reclaim the tag only after demonstrating to the monitoring body that it has returned to compliance. The Service Provider Organisation can appeal the decision of the Monitoring Body with the competent Supervisory Authority pursuant to Article 41.4 of the GDPR.

The working language of the Monitoring Body shall be English.

APPENDIX 4: GLOSSARY OF TERMS

Agent: the organisation operating the Identity Provider on behalf of the Home Organisation, if applicable.

Attribute(s): the End User's Personal Data as managed by the Home Organisation (or its Agent) and requested by the Service Provider Organisation, such as (but not limited to) name, e-mail and role in the Home Organisation.

Attribute Provider: an organisation other than the Home Organisation that manages extra Attributes for End Users of a Home Organisation and releases them to the Service Provider Organisations.

Data Controller: the natural or legal person, public authority, agency or any other body which alone or jointly with others determines the purposes and means of the processing of personal data; where the purposes and means of processing are determined by national or Community laws or regulations, the controller or the specific criteria for their nomination may be designated by national or Community law

Data Processor: a natural or legal person, public authority, agency or any other body which processes personal data on behalf of the controller.

EEA: European Economic Area.

End User: any natural person affiliated with a Home Organisation, e.g. as a researcher or student, making use of the Service of a Service Provider Organisation.

End User's consent: any freely given, specific, informed and unambiguous indication of the End Users wishes by which they, by a statement or by a clear affirmative action, signify agreement to the processing of personal data relating to them.

Federation: an association of Home Organisations and Service Provider Organisations typically organised at national level, which collaborate for allowing cross-organisational access to Services.

Federation Operator: an organisation that manages a trusted list of Identity Providers and Services registered to a Federation.

GDPR: Regulation (EU) 2016/679 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation).

Home Organisation : the organisation with which an End User is affiliated, operating the Identity Provider by itself or through an Agent. It is responsible for managing End Users' identity data and authenticating them.

Identity Provider (IdP): the system component that issues Attribute assertions on behalf of End Users who use them to access the Services of Service Provider Organisations.

Personal Data: any information relating to an identified or identifiable natural person.

Processing of personal data: any operation or set of operations which is performed upon personal data, whether or not by automatic means, such as collection, recording, organisation, storage, adaptation or

alteration, retrieval, consultation, use, disclosure by transmission, dissemination or otherwise making available, alignment or combination, blocking, erasure or destruction.

Service: an information society service, in the sense of Article 1 point 2 of Directive 98/34/EC. This means any service provided, at a distance, by electronic means and at the individual request of a recipient of services.

Service Provider Organisation (SP): an organisation that is responsible for offering the End User the Service they desire to use.

Supervisory Authority: an independent public authority responsible for monitoring the application of the GDPR and the national data protection legislations in order to protect the rights and freedoms of the data subjects in relation to the processing of their personal data.